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Revitalizing Foreign Language Learning in Higher Education Using a PBL Curriculum

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Abstract

Higher education is frequently criticized for inadequate preparation of students so that they could become successful in their studies, future lives and careers. Students tend to lack higher-order thinking skills, in particular problem solving skills. What the new face of a university foreign language course might be is not simply learning languages but also integrating the development of the most important skills of the 21st century – higher-order thinking, problem-solving, self-directed learning, communication and collaboration with the ability to demonstrate these skills using a foreign language. Problem-based learning (PBL) is a unique approach that allows achieving this and therefore needs to be more increasingly implemented even in the field of foreign language education. There is much literature that explains curricular change in the field of PBL demonstrating the value of this approach to students, educators and institutions; however, there is little research to date that has explored PBL in foreign language education. Based on the scientific literature review method, this article addresses the issue of why PBL is a relevant approach to be implemented in foreign language education and suggests ways of its implementation. PBL can help revitalize foreign language learning in higher education as it can create meaningful and authentic communication central to the learning process, where language learning is coupled with learning how to solve ill-structured problems. Students move from reproductive to creative and meaningful language use, which undoubtedly contributes to meaningful learning and increased motivation.

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1. Introduction

Though change is constant in our lives, the world seems to be moving quicker than usual. It is evident that life is becoming more complex and unpredictable and we are learning in times of rapid and even chaotic changes. The changes are mostly driven by an increasingly complex society, new workplace demands, the demands of new generational cohorts of students, exponential growth of information and quick technological progress. The most important tendencies in education to be mentioned are related to moving from individual to collaborative learning, from passive to active learning, from broadcast-oriented to discussion-oriented education, from approaching learners as consumers of knowledge to viewing them as producers thereof, from switching from virtual learning environments with dominating broadcast, teacher-centered view to learner-centered environments, from the content offered by educators to the content created by learners themselves, switching from the focus on teaching, outcomes, content and transmission to the focus on learning, experience and process, from control to creativity, from excessive standardization to rich and engaging educational environments. All of the aforementioned tendencies can be viewed through problem-based learning (PBL) environments, which serve the main purpose – "a learning-centered environment" (Bueno et al., 2015, p. 213).

In order to improve the overall teaching and learning quality, a considerable number of educational innovations have emerged; however, as stated by Jonassen (2011), PBL "is the most significant curricular innovation in the history of education" (p. 153). In higher education (HE), as stated by Savin-Baden (2000), PBL "is something to get excited about, it is an approach that does matter, because through its implementation it is possible to provide many rich and innovative opportunities, which help improve student learning" (p. 5). PBL is an approach to make students learn in complexity with no direct answers or portions of information prepared by educators. The traditional lecture-based educational approach is criticized for "suppressing student learning motivation and subjectivity, overemphasizing knowledge retention, ignoring skill development" (Li, 2013, p. xi). Conversely, PBL is claimed to increase students' motivation and cultivating their soft skills by additionally representing a new way of perceiving knowledge and learning (Li, 2013). "Instead of an instructor-centered, content-oriented, decontextualized teaching and learning mode, PBL uses student-led, problem-driven, problem-solving, and contextualized learning approach to prepare students for real world challenges" (Cho et al., 2015, p. 75). Traditionally, the focus of instructions is on subject content acquisition; however, focusing only on it does not develop learners into good problem solvers ready to cope with the challenges of today's world. PBL additionally aims at helping students to develop the most important 21st century skills - problem-solving, self-directed learning, and collaboration, while traditional instructions are ineffective for this (Cho et al., 2015). Thus, it is an approach that allows students to become qualitatively different persons.

In foreign language (FL) education, there are many fundamental questions unanswered, such as: Is explicit language instruction more efficient than an implicit one when learners simply absorb language through meaningful activities? What does it take to ensure that FL learning is successful? Which approach, method, procedure or technique is the one and serves learner's needs? As stated by an EFL legend Harmer (2015a), "it would be extremely useful if we could simply read some research and know, as a result of it, how to teach and what methods would be most useful" (p. 41). Unfortunately, questions of the kind tend to be controversial and fail to provide direct answers. To quote Richards and Renandya (2002), "research into second language acquisition and pedagogy almost always yields findings that are subject to interpretation rather than giving conclusive evidence" (p. 11). Accordingly, when research provides different accounts of learning success, there are two possible ways for practitioners: either persisting teaching in the same way as before or trying something new (Harmer, 2015a). The first option should be rejected because "that would be unfair, not only on the students, who might not always respond to 'as before' teaching, but also on the teachers themselves, who benefit hugely from constant questioning and investigation about what they do" (Harmer, 2015a, p. 41). The second option is worth taking because PBL may be used as an innovative approach (Anthony, 2010; Boothe & Vaughn, 2011; Perumal, 2015) in HE, including FL learning.

For HE, researchers and educators highlight the importance of cultivating critical thinking and problem solving skills, which are the most important competencies for students to be successful in their studies, future lives and careers. Both competencies are overlapping because they always come together. Critical thinking is necessary in the situations in which we need to solve problems, make decisions and decide in a reasonable way what to believe or what to do. Advance of such skills can contribute to making learners to be able to "evaluate the arguments of others

and their own, resolve conflicts, and come to well-reasoned resolutions to complex problems" and be capable of "building responsible citizens" (Allegretti & Frederick, as cited in Behar-Horenstein & Niu, 2011, p. 25). Vdovina (2013) points out that, if sufficiently developed, critical thinking can provide students with a more skilful way of communication, acquisition of new knowledge, and dealing with attitudes, ideas and beliefs, where language plays an important role. It is even indicated that instructional approaches should change from what to think into how to think (Behar-Horenstein & Niu, 2011; Bueno et al., 2015), and problem-solving is expected to be incorporated in every curriculum (Cho et al., 2015; Foshay & Kirkley, 2003; Jonassen, 2011). Indeed, the debate on whether the critical thinking skill can be improved in education still continues; however, there has already been a large amount of evidence accumulated to prove that the ability to think effectively can be improved when a thinking skill instruction is introduced in the course (Halpern, 2014). PBL ensures the move from focusing on facts and rote learning (the lowest cognitive level) to learning how to solve problems, which is not divorced from higher-order thinking.

According to Kohonen et al. (2014), FL education "does not take place in a social vacuum" (p. 1) and therefore requires reorientation because of having "a broader goal than promoting linguistic and communicative skills only" (p. 2). It should serve for fostering learners' personal growth and preparing them for life in a fast changing world and developing complex learning and thinking skills (Kohonen et al., 2014). Keeling and Hersh (2011) believe that true higher learning includes the preparation to think critically and creatively, solve problems, take responsibility, comprehend complex issues, prepare for analytical reasoning – learning that trains students to meet and excel at the challenges of work and private or public duties. Thus, the role of an ordinary FL teacher in HE should develop into the role of a language educator ready to help promote learners' holistic intercultural and personal competences so that the learner could develop as a person.

As one of the forms of problem-based instructions (Beuno et al., 2015; Foshay & Kirkley, 2003), PBL is increasingly used in a wide spectrum of disciplines. However, in social sciences and humanities the application of PBL is less frequent. As it concerns its application for FL teaching and learning, too little research has been conducted; the idea is underresearched (Anthony, 2010; Larsson, 2001; Li, 2013) as well as too slowly experimented (Coffin, 2011; Anthony, 2010). As Anthony and Kadir (2012) conclude, using PBL for learning English for Specific Purposes is still "a road not taken" (p.51). Coffin (2011) points out that many educators do not understand what PBL is and lack proper training to supervise it. Adopting PBL "requires a substantial commitment to innovation that many teachers and professors are unwilling to take" (Jonassen, 2011, p. 180). There have been but a few scientific attempts to describe this phenomenon in the area of FL teaching (e.g. Anthony 2010; Anthony & Kadir, 2012; Ciuciulkiene, 2004; Coffin, 2014; Doghonadze & Gorgiladze, 2008; Larsson, 2001; Mathews-Aydinli, 2007). It still needs a more thorough investigation and substantiation, especially giving attention to its potential to develop critical thinking in an FL. Therefore, the research problem of the current article is as follows: why PBL is a relevant approach for FL learning and how it can be implemented. This article focuses on switching to a different curriculum for FL teaching in order to revitalize it in the domain of HE. It could fill in the existing gap in literature on the application of PBL in the field of FL teaching and encourage language educators to adopt this approach.

In terms of conceptual approaches, the article relies on contemporary constructivist, sociocultural and situated conceptions of learning that share the following ideas: learning is a process of meaning making rather than that of knowledge transmission; it is a dialogue, a process of internal and social negotiation, a socio-dialogical process (Jonassen & Land, 2012). These learning theories form the foundation for student-centered learning environments, which have a clear focus on students' learning and are alternatives to transmission instruction; with PBL as an example of such an environment (Anthony, 2010; Jonassen & Land, 2012). The article also relies on the idea that problem-solving should be a key component of every curriculum (Cho et al., 2015; Foshay & Kirkley, 2003; Jonassen, 2011). Learning is always situated in some context but theory of situated learning suggests that it "is most effective when […] embedded in authentic tasks that are anchored in everyday contexts" (Hung et al., 2008, p. 488). In such cases, it also results in more "socially mediated and personally relevant kinds of learning" (Jonassen, 2011, p. 160).

First, on the basis of scientific literature review, the author seeks to discuss the key elements of PBL. Second, the article deals with some tendencies in the area of FL teaching and explains the reasons of why it is a relevant approach for FL learning in HE. Third, it discusses how PBL can be implemented in FL learning and includes some technological options how to facilitate the process.

2. PBL for Foreign Language Education

2.1 Characteristics of PBL

The idea of teaching and learning in problem-based context is not new. Dating back to the 1960s with McMaster University adopting PBL in medical education, this approach is still very popular in various disciplines integrated within a conventional curriculum or applied in the whole curriculum. In general, as Coffin (2014) points out, "PBL is viewed and understood at two levels, as a pedagogical approach and an educational strategy" (p. 18). Savin-Baden (2000) supports the view that PBL "is not just a different method or style of teaching. Instead it is a different philosophical approach to the whole notion of teaching and learning" (p.13). As explained by Li (2013), PBL "represents an alternative way of learning and knowing" and "a radical conceptual change in learning and knowledge for organizational members at the university" (p. 170). As stated by Coffin (2014), "the definition of PBL is now broadening, and it is now viewed as a philosophy and a set of learning principles rather than as only one of the instructional approaches to active learning" (p. 8). Hence, this approach is to be considered as a method that represents a real conceptual change in education.

Researchers have come up with various definitions of PBL. As defined by Savery, "it is an instructional (and curricular) learner-centered approach that empowers learners to conduct research, integrate theory and practice, and apply knowledge and skills to develop a viable solution to a defined problem" (as cited in Walker et al., 2015, p. 5). Torp and Sage (as cited in Foo, 2013) describe PBL "as a focused, experiential learning organized around the investigation and resolution of messy, real-world problems" (p. 9). Hmelo-Silver (as cited in Foo, 2013) define PBL "as an instructional method in which students learn through facilitated problem-solving focused on a complex problem that does not have a single correct answer" (p. 9). The central idea of PBL is that students learn in teams in the context of authentic problems. In addition, researchers (Coffin, 2014; Savin-Baden, 2000; Foo, 2013) note that the role of a tutor or an instructor changes into a facilitator of students' learning, students have to become self-directed and self-regulated in the process of learning and there is a change in focus from staff outcomes of learning assessment to student self- and peer assessment. Also, the main idea of PBL is "that students would learn better if they were engaged in real-life problem solving" (Halpern, 2014, p. 454).

Researchers have tried to define and characterize a variety of PBL models using diverse sets of variables. In essence, pure PBL has two distinct characteristics: 1) no lectures or similar forms of knowledge transmission, and 2) learners are required to solve ill-structured problems that are the start of PBL (Cho et al., 2015). For instance, Hmelo-Silver (as cited in Cho et al., 2015) offers three PBL instructional approaches in terms of their format and tools used – PBL, anchored instruction, and problem-based science. Harden and Davis (as cited in Cho et al., 2015) offer the categorization of a set of 11 steps (or levels) of PBL model. Barrows (as cited in Cho et al., 2015) states that self-directedness and problem structuredness are two fundamental variables of PBL shaping the format of its implementation. Based on the two-dimensional spectrum of these variables, Hung (as cited in Cho et al., 2015) states that PBL is "a range of different approaches from pure PBL to lectures with problem-solving activities" (p. 350), which gives a very broad definition of PBL. In Barrows' (as cited in Hung, 2011, p. 534) taxonomy, using these two variables, PBL is classified into six categories: 1) pure PBL, 2) hybrid PBL, 3) anchored instruction, 4) project-based learning, 5) case-based learning, and 6) lecture-based with problem-solving activities. The highest level of self-directedness is in the case of pure PBL and the lowest one is during lecture-based PBL with problem- solving activities. Problems appear in the continuum from well-structured for lecture-based PBL with problem- solving activities to ill-structured for pure PBL.

On the other hand, Jonassen (2011a) supports the view that learning to solve problems is problem-solving learning and gives a more narrow definition of PBL as only "an instructional strategy begun in medical schools" (p. xx), which only can be part of problem-solving learning. Savin-Baden (2000, p. 5) states that it "is not just a straightforward method of solving problems" and therefore cannot be reduced to the single idea of problem-centeredness, and everything that involves problem-solving cannot be counted as PBL. Different definitions and understandings of PBL indicate the fact that it ranges from pure PBL to various models of it.

As commonly agreed in the literature on PBL, this approach is helpful both for the acquisition of domain-specific knowledge and for the development of the most important skills nowadays – problem-solving, higher-order thinking, self-directed learning, and collaboration (Cho et al., 2015; Boothe & Vaughn, 2015). A number of practitioners and

researchers of PBL (e.g. Hung et al., 2008; Jonassen, 2011) admit that the improvement of problem-solving skills is one of the most important promises of this approach. Some authors consider the development of problem-solving skills to be the main objective of PBL while others argue that the direct form of instruction is a better way to achieve it (Walker et al., 2015).

In terms of structuredness, problems are put into the continuum between well-structured and ill-structured ones, this being the most common classification (Jonassen, 2011). Well-structured problems are the ones that are most common in formal education and are typically found at the end of a textbook chapter and in examinations; they contain all the information needed to solve them, they require the application of a limited number of rules and principles organized in either predictive or prescriptive way, they possess correct and convergent answers and preferred, prescribed solution processes (Wood, as cited in Jonassen, 2011). In PBL, according to Hung et al. (2008), learning should be driven by authentic and ill-structured problems, the main characteristics of which being the fact that they resemble problems encountered in everyday life and work, with one or more problem elements unknown. They are not self-contained or multidisciplinary in nature, they have multiple solutions or no solution at all (Jonassen, 2011). Jonassen and Hung (2008) specify that problems should be ill-structured but with a moderate degree of structuredness, complex to a degree that motivates and engages students' interests, adapted to solvers' prior knowledge, cognitive development and readiness, authentic and related to students' future or potential workplaces. It follows that very complex and well-structured problems are not appropriate for successful application of PBL.

2.2 Why PBL Is a Relevant Approach for Learning Foreign Languages in Higher Education

As stated above, in the FL education there is no direct answer to the question as to which approach, method, procedure or technique guarantees the greatest learning achievement. According to Harmer (2015a), language teachers are still like hamsters on a tread wheel, watching the view from it that is always changing and continuously searching for answers how languages could be learnt and how language teachers can best support learners. Similarly, Heine (2010) claims that "in foreign language teaching, the ideal teaching method remains the holy grail of research" (p. 189). Accordingly, language educators should be constantly looking for ways to facilitate language learning since constant search for new ideas "keeps us going, stimulating our curiosity and it is curiosity and research which are the lifeblood of the engaged and engaging teachers" (Harmer, 2015a, p. 7).

Probably the most important condition for language learning to succeed is abundant opportunity to engage in meaningful communication in the target language (Belcher, 1999; Harmer, 2015a). However, comprehensible input or access to the FL "is most effectively provided by exposure to authentic texts, examples of genuinely communicative language use, rather than materials created solely for pedagogical purposes (such as the traditional language drills, fill-in-the-blank exercises, and invented dialogues still found in many language textbooks)" (Belcher, 1999, p. 254). Larrson (2001) claims that teaching an FL may be criticized for being superficial when students are seen as passive receptors of information and when the purpose for learning at the time they learn becomes obscure. In such cases, students lack motivation and are not active learners. For instance, "students, instead of acquiring a sense of when and how to use which vocabulary, learn all the words they will need for the exam next week and then promptly forget them" (Larsson, 2001, p. 3). According to Allen et al. (as cited in Boothe & Vaughn, 2011), "the combination of lectures and assigned textbook readings seems to reinforce students' perception of many content areas as a static collection of incontrovertible facts with little relevance to their daily lives" (p. 329). Working in a PBL setting and encountering the material that is deeply rooted in the context of actual problems instead of just being provided with much material for the sake of simply using an FL, may encourage students to get engaged in the process of learning. PBL learning environments are live, engaging learners in "discussion, debate, and controversy, and in which intellectual curiosity is the driving force for student learning" (Allen et al., as cited in Boothe & Vaughn, 2011, p. 329). Therefore, FL education requires its revitalization with the introduction of PBL, in which learners may learn how to think critically, be transformed into active constructors of knowledge, with selection of meaningful material, interaction with each other, solution of real-life problems, by giving up old textbooks and developing a deeper approach to learning.

Learning FLs is very different from learning other subjects because language is like a tool of communication. There is no emphasis on acquiring certain knowledge like, for example, in social sciences or engineering, where this often becomes the reason to use traditional teaching based on lectures. In general, while learning FLs, there is an emphasis on skills, such as listening, reading, writing and speaking in an FL. It can be supplemented with the development of additional skills, in particular problem-solving, collaboration and self-directedness. The subject knowledge acquisition can be replaced with problem solving using the target language.

Many second language acquisition theories ignore the social nature of learning (Zhao, 2013) and thus contradict the ideas of contemporary constructivist inspired learning theories. Although the social nature of language use has been widely acknowledged, language learning has been mostly treated as an individual process, in which the learner internalizes input from the outside world with language teachers facilitating learners by providing comprehensible input and giving opportunities for them to practice (Hymes, as cited in Zhao 2013). However, language is a social activity and therefore a social approach to learning is needed. The theory of learning as a legitimate peripheral participation should be taken into account when learning FLs; learners cannot be treated as "independent information processing machines rather than social beings" (Zhao, 2013, p. 45). In terms of such a new framework, language learning occurs "in the co-participation of the learners and expert users of the target language. Knowledge is not transmitted or discovered from an outside source but constructed by the learner in an improvised fashion while directly participating in productive activities of the community" (Zhao, 2013, p. 45). In this way, teaching is not to provide input but to engage learners in such an educational environment that allows learners to interact with each other and the environment. As confirmed by Harmer (2015a), learners tend to learn better when they interact. In this view, PBL learning environments are the ones that call for social interaction and communication where learners learn from each other. Relying on social aspects constructivism deals, when learners construct knowledge within a community, better motivation and greater confidence are usually demonstrated.

In the 1970s and early 1980s, a communicative approach in the area of FL teaching was introduced. It considers interaction among learners as both the means and the goal of the learning process. It also gave rise to such a popular approach as content and language integrated learning (CLIL), which is increasingly replacing traditional language teaching all over the world. It is also called content-based teaching; however, according to Cenoz (2015), these two mediums of instruction show no differences, the main underlying idea behind the usage of an FL as the medium of instruction and communication for content subjects. Thus, it is not the linguistic structure in the centre but its communicative use in authentic learning situations for mastering the content. When evaluating whether content-based language teaching works, "various results suggest a high rate of achievement" (Harmer, 2015a, p. 7), which means that learners are successful both in subject-matter learning and language acquisition. It can be assumed that students can also be successful in learning how to solve problems along with learning an FL; then an FL course can have a twofold goal. In addition, both PBL and communicative language teaching share similar outcomes; however, communicative language teaching may be rendered meaningless if learners are involved in communication that is not relevant to them, just for the sake of using an FL. In contrast, PBL problems can provide a purpose for meaningful communication.

Moreover, the underlying idea of communicative language teaching (CLT) is that "language learning would take care of itself" (Allwright, as cited in Harmer, 2015b). However, as suggested by Harmer (2015a), emphasis on activity and engagement of learners in communicative tasks does not make the magic work every time. Although this is a very promising approach that freed up practice, downgraded explicit language teaching (taking the details of the FL and studying them) and enabled learners to interact with each other instead of concentrating on pattern practice, it does not provide all the answers because of leaving some learners with more cognitive needs floundering (Harmer, 2015b). It means that at least some minimal language noticing inititiated by a language educator is necessary for language learning to succeed. As Harmer (2015a) believes, "students will better understand and learn things if they pay attention to those things and focus on them" (p. 52). On the other hand, Krashen (as cited in Harmer, 2015a) was one of those linguists who believed that for language acquisition to be successful it is enough to expose learners to abundant comprehensible input in a relaxed setting. The question whether language learning should be explicit or implicit still remains controversial in an FL teaching area and it is accompanied by "a fairly convincing consensus that having students focus explicitly on language forms will help them learn" (Harmer, 2015a, p. 43). With a comprehensible input ensuring progress of learners, "students may reach a point from which they fail to see further progress on some features of second language unless they also have access to guided instruction"

(Lightbown & Spada, as cited in Harmer, 2015a, p. 43). This allows saying that PBL cannot guarantee success if implicit language learning is only undertaken. Instead, at least minimal guided instruction to gain explicit knowledge in the language development process is required and FL learning may be supplemented with explicit teaching of grammar and vocabulary in order to achieve better results. Therefore, when PBL is applied in FL teaching, it cannot be assumed that it is only communication in an FL that will work.

Although PBL has not been frequently applied in FL education, researchers and practitioners already list benefits related to its usage. For instance, Anthony and Kadir (2012) report on positive attitudes of both students and teachers towards this approach. It is claimed that PBL enhanced students' engagement, motivation, their confidence level and the ability to develop new skills necessary for their future. Also, it extended the English language usage beyond the classroom among students "unlike in the case of previous traditional approaches where students hardly had time to use the language in the classroom as it was very much the teacher talk scenario" (Anthony & Kadir, 2012, p. 69). Students welcomed this approach because it is interesting, rewarding and enjoyable (Anthony & Kadir, 2012). Anthony (2010) concludes that this approach focuses clearly on students' learning, on the development of lifelong skills (enquiry, analysis and synthesis) and promotes active as well as self-directed learning; invites students to take responsibility of their own learning and, most importantly, enhances the development of problem-solving skills and higher-order thinking. Similarly, Larrson (2001) admits that learners "develop greater communicative, thinking and problem-solving skills with PBL than with regular lecture-based education" (p. 2). Doghonadze and Gorgiladze (2008) indicate that it involves learners in lengthy discussions that undoubtedly increase FL use.

Summing up the reasons indicating that PBL is a relevant approach in FL education, the most obvious ones are those related to language learning in an innovative, active and meaningful way that is coupled with the development of such important skills as problem-solving and critical thinking, among others. Additionally seeking to achieve non-linguistic outcomes when learning in the context of real life problems, it can also aid in personality development. PBL can also offer a greater diversity both for educators and diverse learners, who require various learning methods.

2.3 How to Implement PBL in Foreign Language Education

Researchers (Boud, as cited in Coffin, 2014; Savin-Baden, 2000) admit that PBL is very flexible and can have various combinations of design variables depending on the discipline where it is implemented. Therefore, FL educators may think of various ways to implement and make it FL learning-specific, though its implementation is also related to additional considerations of what interventions are necessary in terms of FL use and development, which, undoubtedly, makes the task even more complicated.

The process of PBL implementation in FL education has been described by Anthony (2010, pp. 14-17), who applied it to English for Specific Purposes. First, students were assigned to small working groups. The learning process started with the presentation of a problem, which was discussed with a facilitator to get additional information. Then, students did research for additional information. After a couple of days, they gathered to share what they had learnt, reconsider their assumptions and generate new ones in light of their newly gained knowledge. Whiteboards/ flipcharts could be used to record arising ideas, and externalize different aspects of the problems. They are used as a systematic approach to problem-solving to support students' planning and identifying what needs to be added or removed later. Also, a FILA table (a grid used in the process of analyzing problems; Facts, Ideas, Learning Outcomes/Issues and Actions) can be used for the discussion of the problem and as a forum for students to co-construct knowledge. When the problem is started to be discussed with a raw understanding, students activate their prior knowledge which prepares them for learning. Later they are asked to explain and justify their solutions/ assumptions to other members and listen to arguments provided by other members. This process is devised to clarify and revise one's opinion. Finally, learners report to fellow students what they have learnt and what solutions have been found.

The process of implementation of PBL in the English language course has also been explained in detail by Mathews-Aydinli (2007, pp. 1-5), who divides it into processes for students and roles that language educators need to take on. According to the author, the processes for students comprise:

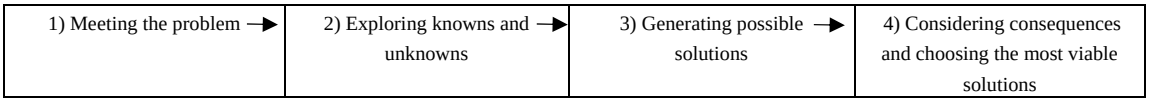

Fig. 1. Processes for students in PBL (adapted from Mathews-Aydinli, 2007).

The author divides teachers' roles into 5 stages: 1) preteach, 2) introduce problem and vocabulary, 3) group students, provide resources, 4) observe and support, and 5) follow up and assess progress. During the first stage, the author explains that it is important to make sure that students understand the benefits and goals of PBL for language learning. Also, he invites to emphasize the importance of using English in the activities. During the second stage when students meet the problem, the role of teachers is to introduce students to the problem by using videos, texts and vocabulary related to the problem. Students should be asked about the previous personal experience with the problem and can be provided with prereading exercises on it. During the process of the exploring knowns and unknows, the third stage comprises the following roles: making sure that students understand the problem, emphasizing that there is no single answer or solution, and that they need to identify the most viable solution and be prepared to explain why they chose it; giving students access to various resources; grouping into groups of students with different language backgrounds and proficiency levels. When students generate possible solutions, consider consequences and choose the most viable solutions, the fourth stage for teachers includes: observing students and providing support as needed without attempting to direct their efforts or control their activity to solve the problem; observing, taking notes, and providing feedback on students' participation and on the language used during the activity. The fifth stage includes: provision of opportunities to present and share the results of their work; provision of follow-up activities based on teachers' observations (e.g., form-focused instruction on grammar, pronunciation, or pragmatic issues) and assessment of students' participation and success in the activity. In this implementation procedure, Mathews-Aydinli includes both steps required for the facilitation of learning by using PBL and activities concerning FL learning. The author highlights the fact that language proficiency development is not only based on implicit language learning (just using the language in the process) but also on deliberate steps to monitor language development in the process. Also, assigning students to the groups of learners with different language background and proficiency levels is most important as they could learn from each other. Of course, this procedure does not represent a single recipe for the implementation of PBL in FL education; however, it can serve as a basis for starters.

Summing up the ideas on how to implement PBL in learning FLs, the following steps should be considered: 1) present learners assigned to groups with a problem or allow them to choose/ find a problem individually, 2) allow time for an individual study in various resources; 3) organize team work, hold discussions in order to share and revise the problem, generate possible solutions and 4) ask learners to come up with a generalized opinion what they have learnt and present solutions. All these steps can be supplemented by various procedures devised to monitor and support FL development.

PBL cannot be successful without technology-enhanced learning environments. As stated by Donnelly (as cited in Tan & Goh, 2013), "there is concurrence in the literature that digital technologies may support and extend well-designed learning activities, particularly in terms of improving student motivation and engagement with tasks" (p.18). A great variety of technologies may support learning, engage students in the construction of a meaning both personally and socially as well as allow quicker communication and learning, which is an essential condition to survive in our hectic world. Students can make use of various resources and have better access to language tools as they are capable to check the spelling, look up new words or open an online dictionary of collocations. Technologies may be a solution to the problem of traditional classrooms with row-by-column seating that are usually not adapted for group work, collaboration and active learning, whereas online environments provide flexible places and times for meetings. It also allows enhancing the engagement of such students that are less-vocal and unwilling to be the centre of attention when they share ideas face-to-face. To make the very process of problem-solving easier, these tools allow to externally lay the components of the problem at hand, their variables and relationships that work among them, which may contribute to the understanding of the problem and lead to its solution. Technologies may be used to record an activity and reflections, enhance both synchronous and asynchronous communication, share ideas, edit live, keep track of the situation, present solutions to problems, etc. For instance, tools such as Skype, Blackboard

Collaborate and Adobe Connect, allow learners to communicate on the Internet when they cannot meet physically. Google Hangout on Air is a perfect tool for online discussion and even allows recording thereof. Other tools for sharing information are, for instance, Blogs and Wikis. By simply sharing the link to a document, it can be edited by everyone with the help of such tools as Dropbox or Google Docs. Solution to a problem can be externalized by using mindmapping with such a tool, as Cmap. Free online tool Trello is particularly appropriate because it allows tracking of the progress of collaboration, and everything is on one screen at a glance.

When implementing PBL, educators may face multiple challenges. To mention just a few, the main one is the construction of problems. It is important that they are challenging, interesting and relevant to students' reality (Larsson, 2001). For other subjects, PBL problems usually serve as a means of understanding the subject area and teaching content specific to the subject. For learning FLs, problems should first of all serve as a means for meaningful communication in order to improve communicative competence in an FL. They do not have to be too much content-led or presuppose an in-depth knowledge of a specific subject matter because otherwise both students and educators may be threatened by the idea of being too much immersed in the content aspect of the problem being solved. Problems can be interdisciplinary, related to the major subject of students, their future career or future life so that they can learn how to express themselves in situations that they will probably encounter in the future. The focus should be on improving specific skills such as argumentation, reasoning, problem-solving or decision-making in an FL rather than on the learning content. It is most important to offer such problems that would involve students in real-life communication and make language learning purposeful.

Another big challenge lies in the fact that this approach engages learners in the use of an FL as a working language for problem-solving. No doubt, it may require more time to express ideas and frequently make realize that some lexical items in FL are not as readily available as in the native language. As Larsson (2001) suggests, "if the students' command of the language is not sufficient for the task at hand, creativity and enthusiasm will naturally drop and give way to frustration and disappointment" (p. 5). The possible explanation could be that PBL is not relevant for learners of basic levels because solving problems in an FL may be an extra barrier for learning. The most appropriate piece of advice could be to apply this approach for the learners seeking the highest levels of language proficiency. According to the Sapir-Whorf hypothesis of linguistic relativity, the language we use affects the way we think; however; psychologists have proved that it is only half right since language influence but does not determine thinking (Halpern, 2014). It follows that when an FL is used for thinking (when, for instance, PBL is implemented in an FL course), it can also contribute to the enhancement of critical thinking.

PBL can be used within a conventional curriculum by changing parts of an existing course and thus making it hybrid, or as the basis for an entire curriculum. A reasonable choice, perhaps, is to do a 'soft start' by gradually introducing PBL elements, and later, after evaluating this intervention, to try a more complete makeover. For a novice, implementation of a part of PBL with the existing curriculum can make the change less stressful both for them and their students, especially for the ones that are not familiar with this approach.

3. Conclusion

Since HE institutions are expected to support and facilitate the development of competitive citizens ready to live and work successfully in a knowledge-based society and in an increasingly complex world, an FL course curriculum can have an emphasis on learning how to solve problems, coupled with the learning of an FL itself. It should integrate the development of the most important skills of the 21st century – higher-order thinking, problem-solving, self-directed learning, communication skills and collaboration with the ability to demonstrate these skills when using an FL. PBL is a unique approach that allows to achieve this and therefore needs to be more widely implemented in the field of FL education in HE.

PBL in FL education leads to a meaningful and authentic communication central to the learning process and allows students to move from reproductive to creative and meaningful FL use, which undoubtedly increases motivation. Being similar to such successful approaches as CLT and CLIL, PBL involves in learning an FL by using it in authentic learning situations of solving real life problems, rather than being involved in practicing an FL that is less likely laden with meaning. It grants the learners flexibility to choose from linguistic resources that they deem relevant and purposeful for learning rather than from those offered by an educator. Putting learners into a different

position in the learning process with the opportunity to achieve novel insights may also boost self-confidence of learners and make FL learning an exciting activity. Moreover, PBL empowers students to succeed in contexts where they are required to act as a team and solve problems in an FL, which will undoubtedly be required in their future life and work situations.

Employment of PBL suggests that students can be free to express their thoughts, take actions and assume greater responsibility for their own learning. PBL grants more time for self-directed learning in contrast to learning by following the traditional approach, which often may be boring and probably less engaging for students. When educators spend less time on controlling the classroom learning, and when their role shifts from directors of the auditorium to facilitators of learning, this may result in more time students are using English. Also, students will be engaged in the cultivation of critical thinking skills, which means that they are engaged in learning an FL together with thinking and are taught not about language but how to think in that language. Students will learn how to compare their views and ideas, evaluate arguments and think effectively using an FL. PBL represents a new way of perceiving learning and learners and educators' role in it rather than just a new method of teaching. It bridges the gap between learning and the real world, because the real world becomes part of the learning process. When students are not imposed concentrating on knowledge acquisition but deeply involved in problem-solving and working in a solution-focused way, they have greater opportunities to develop problem-solving skill. Finally, as an innovative way for learning FLs by attaching more meaning to it, this approach also allows meeting the demands of modern society in terms of desirable skills. Therefore, PBL is definitely an approach worth trying out because it might make positive effects in acquiring language skills and competence in learners and might revitalize FL education in HE.

For FL educators, PBL environments may offer entertaining ways of facilitating learning and communication among students. Although this approach is time-consuming and requires thoughtful preparation and scaffolding, it also allows for flexibility in its implementation. In itself being an ill-structured problem to solve, it can contribute to greater professional development and represents a way to challenge practitioners to think critically about what they do. PBL may help language educators to deal with the problems they often encounter in motivating learners and fostering autonomy. Furthermore, it is especially relevant to those who seek to aid the students of higher levels of language proficiency. Apart from mastering PBL as an approach for learning, it may be difficult for language educators to decide on the successful intervention regarding FL use. Therefore, the very start can be really threatening and challenging, but probably lead to greater satisfaction when accomplishing it. Finally, the article aims to encourage educators to implement PBL curriculum for FL learning not just as an approach "set in stone" but to inspire educators seek for a change, which may result from one's observation and experience when this innovative approach and a meaningful instruction is applied. The feedback educators may get would modify and reshape the overall understanding of what teaching and learning are.

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